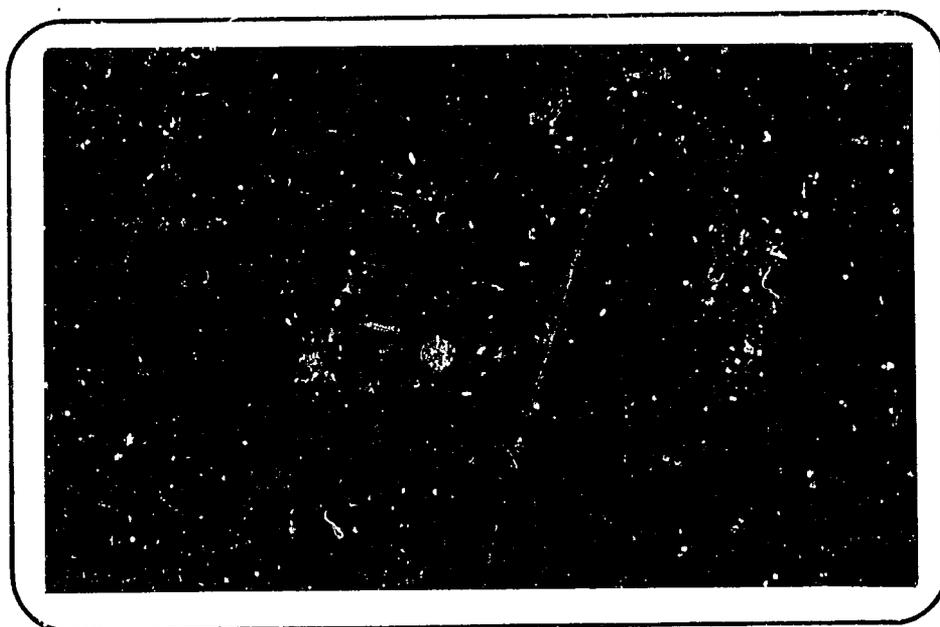


CORNELL NUTRITIONAL SURVEILLANCE PROGRAM

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SURVEILLANCE SUMMARIES (NO: 2)

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A report of research of the Cornell University Agricultural Experiment Station

SURVEILLANCE SUMMARIES (NO: 2)

BOTSWANA

Since its implementation on a national level in January 1978, the nutritional surveillance system in Botswana (population 800,000) has been providing monthly clinic-based data on the nutritional status of pre-school children. The stated purpose of the system is "to assess the relative importance of malnutrition risk on national, regional and community levels to enable the government to set action priorities in case of impending drought" and "to provide a rationale for health workers to follow-up families and individuals nutritionally at-risk". There are also plans to develop a Food and Nutrition Information System (FNIS) which would link the nutritional surveillance data with agricultural and meteorological information for decision-making purposes in drought monitoring. The FNIS would also provide information which would be useful in the broader context of development planning.

Organization. The users of the nutritional surveillance system are the Nutrition Unit of the Ministry of Health, the Ministry of Local Government, the Interministerial Drought Committee (IMDC), the Regional Health Teams and the District Drought Committees. Every month over 300 health facilities in Botswana send information on the nutritional status (weight-for-age) of the pre-school children attending their Child Welfare Clinics (CWC's) to the Central Statistics Office (CSO) in Gaborone.

Outputs and Uses. The CSO compiles these data and produces a monthly Nutritional Surveillance Report which gives national, regional, as well as individual health facility prevalence figures for children nutritionally at-risk (below 80% weight-for-age of the Harvard Standards). The CSO also aggregates these figures into an ecozone classification whereby one can distinguish the prevalence figures of urban areas from rural areas, by large villages from small villages, cattle posts from land areas, and so on. The CSO

supplies its monthly Nutritional Surveillance Report to the Nutrition Unit, the Regional Health Teams, the IMDC and the District Drought Committees. As a result of the recent evaluation of the nutritional surveillance system there will be several changes made in the present method of data collection and reporting at the clinic level. The new system will be more simple and streamlined than the previous system and will collect information on each child's nutritional risk status, participation in a food relief programme, as well as on the mother's education level. The information on participation in a feeding programme will provide information useful for monitoring and evaluating food distribution programmes. The information on mother's educational level should be helpful in monitoring the composition of the clinic-attending population and hence in interpreting the at-risk prevalence figures.

Data Sources. The nutritional surveillance system is based on monthly weight-for-age prevalence figures of pre-school children who attend CWC's. Another potential source of anthropometric data will be from the nationally representative nutrition module of the CSO's Continuous Household Integrated Programme of Surveys (CHIPS). CHIPS will provide height, weight and age data every 2 to 3 years and will be especially useful in providing a profile on the problem of chronic malnutrition (stunting) found in different parts of the country. Several sources of data exist for the Food and Nutrition Information System. These include agriculture/livestock data, meteorological data, food price data as well as nutritional surveillance data.

LESOTHO

In Lesotho (population 1.4 million) several activities are related to nutritional surveillance. In the Ministry of Health the Nutrition Surveillance Unit and the Health Planning and Statistics Unit have jointly worked together to co-ordinate the collection, analysis and tabulation of clinic-based anthropometric data from pre-school children who attend the government's MCH clinics. This system has been operating experimentally in approximately 17 health centers around the country. Another government body involved with nutritional surveillance is the Food and Nutrition Co-ordinating

Office (FNCO) which is a multi-sectoral office which co-ordinates the food and nutrition activities in the country. It reports directly to the Prime Minister's Office. The FNCO has made plans to improve and expand the present nutritional surveillance system so that the information it produces becomes more useful for decision-makers in different sectors. The FNCO has also been active in developing plans for a National Early Warning System which would use agro-climatological data to help predict and monitor the drought emergencies which plague the country. An additional activity which is important for surveillance is the development of the National Household Survey Capability Programme (NHSCP) which is being organized by the Bureau of Statistics. The NHSCP when implemented will provide on a 2 to 3 year basis nutrition, agriculture and socio-economic data from a nationally representative sample of households. An integrated data analysis could potentially be made of factors associated with childhood malnutrition.

Organization. The present nutritional surveillance system is based on anthropometric measurements of pre-school children who attend the government health clinics. The data are sent to the central Nutrition Surveillance Unit for analysis. Recently the procedure for collecting and analyzing the data has been revised in order to simplify the process. The Health Planning and Statistics Unit has also computerized the analysis of the data using a micro-computer.

Output and Users. The primary user of the nutritional surveillance data to date has been the Ministry of Health. Data outputs have included prevalence figures on the numbers of wasted, stunted and wasted/stunted children. As previously mentioned the FNCO has taken a leading role in formulating plans to develop and expand the present system so that it becomes more useful for multi-sectoral decision-making and planning.

Data sources. The primary data source is from pre-school children who attend the government's health centers. Other future sources of data which are relevant to nutritional surveillance include the agro-climatological information

used for drought monitoring as well as the data which will be generated from the NHSCP.

MALAWI

In Malawi (population 6.1 million) the Nutrition Section of the Ministry of Agriculture is responsible for nutritional surveillance. The Nutrition Section also serves the Inter-Ministerial Food and Nutrition Committee (IFNC) which is the government body which co-ordinates the nutrition activities and programmes of different ministries (e.g. Agriculture, Education and Culture, Health, Local Government, the Department of Community Services and the University of Malawi). The framework of the nutritional surveillance system is still relatively new and is based on primarily food availability data obtained from the country's eight Agricultural Development Districts (ADD's). A major goal of the nutritional surveillance system is to develop an early warning system to identify areas of food shortages as well as to monitor the impact of development programmes on food availability. Other activities in Malawi which are relevant to nutritional surveillance include the Ministry of Health's on-going system of reporting anthropometric measurements of pre-school children who attend MCH clinics. In addition, the National Statistics Office will include a nutrition module every 2 or 3 years in their Annual Survey of Agriculture (ASA). The information generated by the nutrition module will provide a nationally representative picture of the nutritional status of pre-school children which includes anthropometry and infant feeding practices. This information could potentially be linked with the agricultural data collected in the ASA.

Organization. Nutritional surveillance activities are run through the eight ADD's in the country. The ADD's are the planning units through which the National Rural Development Programme is being implemented. Field officers stationed in the ADD's visit households in their areas and collect information on food availability, malnourished children as well as on nutrition education activities. This information is then sent to the Senior Agricultural Extension

Officer in each ADD who is the person responsible for compiling it into quarterly and annual reports before sending it to the central Nutrition Section.

Output and Uses. A key purpose of the information collected in the ADD's is to use it to forecast and identify food shortages so that appropriate remedial actions can be taken. Three times a year - soon after planting in Dec/Jan, in March and just before harvest in June - crop estimates are made. In addition, Food and Nutrition Programme Officers carry out a pre-harvest assessment of the food situation of the households in their areas. The information from these activities is used to advise the Agricultural Development and Marketing Corporation (ADMARC) on whether local maize or other staple stocks need to be increased in the face of a forecasted food shortage.

Data Sources. The Ministry of Agriculture's nutritional surveillance system is based on data which come from each of the country's eight ADD's. For each ADD information is collected on food availability, malnourished children, as well as on nutrition education activities. Other potential sources of data for nutritional surveillance include the weight-for-age measurements of pre-school children who attend the Ministry of Health's MCH clinic as well as the anthropometric data which is collected through the nutrition modules of the ASA.

MOZAMBIQUE

At the time of Mozambique's (population 12.5 million) independence in 1975 very little information was known about the nutritional status of the population. In 1977 the Nutrition Section of the Ministry of Health was established. By 1982 the Nutrition Section had begun the first experimental stage of a clinic-based nutritional surveillance system. The broad objective of the nutritional surveillance system when it is fully developed is to provide regular information on the nutritional status of the population in order to identify those groups and areas which are nutritionally worst-off as well as to provide other relevant information (e.g. agricultural) on possible causal factors. The data will be used by decision-makers in the Ministry of Health

and will also be channelled to other sectors (e.g. Agriculture and Commerce and Planning) for use in policy-making and planning of food production, distribution and commercialization.

Organization. The data which are currently being collected consist of weight-for-age measurements taken from pre-school children who attend the MCH clinics at certain selected Health Centres. The data are taken directly from each child's Road-to-Health card and are entered on a tally form for that Health Centre. This information is then sent to trained nutritionists who are stationed in each of the country's eleven provinces. At the Provincial level the data are summarized by Health Centre, District and Province and this information is reported to the Nutrition Section in Maputo. The Nutrition Section hand-tabulates the information to produce national level figures. At the present all the analyses are done by hand, however, plans are being made by the Nutrition Section to computerize the process. Since the nutritional surveillance system is still in the experimental phase its coverage of the country's 281 Health Centres, 788 Health Posts and 1350 Communal Villages is relatively low. There are plans to expand the nutritional surveillance system in the Ministry of Health's Programme of Action for 1983-85 with the foremost priority being given to those areas in the country which are known to be most prone to natural disasters such as drought. In the health facilities and areas which at the moment do not have MCH clinics, such as Health Posts and Communal Villages, the Nutrition Section is considering using Primary Health Care workers to collect mid-arm circumference measurements of pre-school children.

Output and Uses. To date the main user of the nutritional surveillance system has been the Nutrition Section. They have produced maps which show the malnutrition rates by District and Province and have also produced simple time-series graphs which show the changes in the prevalence rates for certain Provinces. The Nutrition Section has collaborated with the Department for the

Prevention and Combat of Natural Disasters (Ministry of Planning) to coordinate the use of the nutritional surveillance data in monitoring drought.

Data Sources. The present nutritional surveillance system consists of collecting weight-for-age measurements of pre-school children who are attending MCH clinics at selected Health Centres. The MCH Unit and the Nutrition Section have tentative plans to revise the present Road-to-Health card to include only children 0-3 years because of the low attendance rates of children 4-5 years to the MCH clinics. Mid-arm circumference measurements may also be collected and reported from areas which do not have MCH clinics. At a later date the Nutrition Section plans to incorporate the collection of certain agricultural data into the nutritional surveillance system.

TANZANIA

The approach Tanzania (population 18.7 million) has taken in nutritional surveillance is unique and innovative in that the regional-based system which is being developed is designed to provide information which would be useful for community level planning as well as for decentralized planning at the district and regional levels. Working within the concept of decentralized planning the idea behind the nutritional surveillance system is that each region should eventually develop and operate a surveillance system using regionally based administrative staff in collaboration with staff from the Tanzania Food and Nutrition Centre (TFNC). The objectives of the system in broad terms include assessing the nutritional status of the population with particular reference to groups at risk as well as providing information on possible causes of malnutrition. This information would be useful in planning relief actions and interventions as well as in monitoring the nutritional effects of regional development programmes.

Organization. Nutritional surveillance committees have been formed from the Ujaama village level up to the regional level. At the regional level the Regional District Development Director is the chairman of the surveillance committee. The aim of the system is to design a village-level data collection

network which would be most useful for village level decision-making. Villages are organized into Ten Cell groups and these groups form the basic unit of data collection. Each month the Ten Cell leaders collect nutritional status and relevant morbidity information from the growth cards of all the pre-school children who live in their group and they report this information to their Village Secretary. The summarized village data is passed up to the Ward Secretary (each Ward consists of about 5 villages). The Ward Secretary and Ward Council use this information for locally based interventions which are within their capacity to undertake. When problems are identified as being beyond their capacity the Ward Council approaches higher administrative levels for help and resources.

Output and Uses.

The Tanzanian nutritional surveillance system will provide information on the numbers and whereabouts of malnourished children in the Ujaama villages. It will also permit comparisons to be made between the prevalence figures found in different villages and wards. This system encourages village-level intervention and promotes increased awareness and understanding of malnutrition problems among village leaders so that appropriate preventative and remedial actions can be taken.

Data Sources. Weight-for-age measurements taken from pre-school children's growth cards are the main source of information for the present nutritional surveillance system. Additional information which would be relevant for nutritional surveillance is that which is produced from the Ministry of Agriculture's Early Warning and Crop Monitoring Project. This project aims to provide advance information and assessment on crop production, stocks, supplies and utilization of food grains for all of Tanzania's regions. In addition a qualitative assessment is made on the agro-climatological conditions in the country.

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